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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,818

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Jeffrey J. Nelson

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EXAMINER

MARCELO, MELVIN C

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 02/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,818

Applicant(s)

NELSON ET AL.

Examiner

Melvin Marcelo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/2004 & 1/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 3 is objected to because of the following informalities: In claim 3, line 2, "filed" should be --field--. Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 5-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-13, respectively, of U.S. Patent No. 6,728,803 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because in open-ended claims (i.e. "comprising"), it would have been obvious in a subsequent claim to delete recited limitations from the patented claim in order to recite limitations that applicants consider to be essential to their invention. In the current application, claims 5-7 are identical to the patented dependent claims 11-13, except for the removal of the limitations to which claims 11-13 depend from. Since open-ended language is used, these claims conflict.

APPLICATION CLAIMS 10/798,8181

5. *A bridge circuit for a communication link comprising:*
- a packet switched side supporting a full duplex packet switched link;*
 - a circuit switched side supporting a number of full duplex circuit switched links;*
 - a binding mechanism within the bridge circuit having a storage space for storing a logical binding description binding packet switched frames to a particular one of the circuit switched links.*
6. *The bridge circuit of claim 5 wherein the bridge circuit identifies a logical exchange indicated in packet-switched frames received the packet switched link and maintains the logical binding throughout the duration of the logical exchange.*
7. *The bridge circuit of claim 5 wherein the binding mechanism further comprises:*
- a storage structure holding selected header information from received packet switched frames;*
 - a frame generator for reformatting received circuit switched frames into packet switched frames using stored header information.*

PATENT CLAIMS US 6,728,803 B1

11. *The data communications architecture of claim 1, wherein said bridge device comprises:*
- a packet switched side supporting a full duplex packet switched link;*
 - a circuit switched side supporting a number of full duplex circuit switched links;*
 - and*
 - a binding mechanism within the bridge circuit having a storage space for storing a logical binding description binding packet switched frames to a particular one of the circuit switched links.*

12. The bridge device of claim 11, wherein the bridge device identifies a logical exchange indicated in packet-switched frames received on the packet switched link and maintains the logical binding throughout the duration of the logical exchange.

*13. The bridge device of claim 11, wherein the binding mechanism comprises:
a storage structure holding selected header information from received packet switched frames; and
a frame generator for reformatting received circuit switched frames into packet switched frames using the stored header information.*

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Karol et al. (US 6628617 B1).

Karol teaches the bridge circuit (CL-CO Gateway) for managing a data connection between a packet switched link (connectionless (CL) network such as Internet Protocol, column 1, lines 7-8) and a circuit switched link (connection oriented (CO) network operated in a switched mode, column 1, lines 7-16 and column 7, lines 55-59). The gateway (Figure 4) is bi-directional in that data flows in both directional, CL

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to CO and CO to CL as shown by data flow from Source 201 to Destination 251 through Gateways 240 and 250 in Figure 2. With respect to the claims below, references to the prior art appear in parenthesis.

1. *A method for managing a data connection (Karol, Figures 2, 4 and 5) comprising the steps of:*

generating a first message (Figure 2, Source 201 is in the CL network which uses Internet Protocol);

encoding the first message into a first datagram, the first datagram including meta-data for use by a packet switched link (IP datagram 501 in Figure 5 includes packet header field values which is the meta-data, column 7, lines 55-59);

transporting the datagram over a packet switched link (Figure 4, the datagram is transported between the CL Router/Switch 420 and Packet Buffer 440);

receiving the datagram from the packet switched link in an intermediate data transport mechanism coupled to the link (Packet Buffer 440 of the Gateway in Figure 4);

storing the meta-data in the intermediate data transport mechanism (Database 431 includes Header translation database 434 which stores the CL packet header field values in order to associate them with CO circuit identifiers, column 7, lines 55-59);

re-encoding the first message into a second datagram, the second datagram including meta-data for use by a circuit switched link (Protocol converter 450, column 7, lines 14-29, which includes the circuit identifiers, column 7, lines 55-59); and transporting the second datagram over a circuit switched link (CO Switch 410 in Figure 4).

2. *The method of claim 1 further comprising the steps of:*

receiving the second datagram from the circuit switched link (Figure 11, datagram received at Endpoint 1102 through the CO network 950);

generating a second message in response to the second datagram (Applications include Internet telephony, column 16, line 63 to column 17, line 7, wherein in Internet telephony the endpoints function as both sources and destinations, and messages are generated in response to received messages);

encoding the second message into a third datagram including meta-data for use by the circuit switched link (Protocol conversion, column 16, lines 63-67, which includes circuit identifiers in the circuit switched link for the Header translation database, column 7, lines 55-59);

transporting the third datagram over the circuit switched link to the intermediate data transport mechanism (GWs 960, 961, 962); and

re-encoding the second message into a fourth datagram, the fourth datagram including meta-data copied from the stored meta-data for use by the packet switched link (Header translation from CO circuit identifiers to CL packet header field values, column 7, lines 55-59).

5. *A bridge circuit for a communication link (Gateways in Figure 9 such as GW3 962) comprising:*

a packet switched side supporting a full duplex packet switched link (IP Network side 901, wherein links to the IP Routers are full duplex since they are bi-directional);

a circuit switched side supporting a number of full duplex circuit switched links (CO Network side 950 including circuit switched links to Switches 3 and 5 (953 and 955, respectively), wherein links to the Switches are full duplex since they are bi-directional);

a binding mechanism within the bridge circuit having a storage space for storing a logical binding description binding packet switched frames to a particular one of the circuit switched links (Binding mechanism includes the translation database 434 in the gateway which stores CL packet header field values with the corresponding CO circuit identifiers, column 7, lines 55-59).

7. *The bridge circuit of claim 5 wherein the binding mechanism further comprises:*

a storage structure holding selected header information from received packet switched frames (Binding mechanism includes the translation database 434 in the gateway which stores CL packet header field values with the corresponding CO circuit identifiers, column 7, lines 55-59);

a frame generator for reformatting received circuit switched frames into packet switched frames using stored header information (Protocol converter 450 must be bi-directional and must convert circuit switched frames into packet switched frames

in order for data to flow from the CO network 260 to Destination 251 in the CL network 230 in Figure 2, wherein the translation database replaces circuit identifiers with the CL packet header field values).

Allowable Subject Matter

6. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 8-11 are allowed.

8. Note: Claim 6 is allowable over the prior art of record, but must overcome the double-patenting rejection.

3. *The method of claim 1 wherein the first message includes an exchange identification filed holding a value that uniquely identifies a logical exchange to which the message belongs.*

4. *The method of claim 3 further comprising:*

after receiving the first datagram from the packet switched link in the intermediate data transport mechanism, binding the exchange identification value to a particular circuit switched link for the duration the logical exchange.

6. *The bridge circuit of claim 5 wherein the bridge circuit identifies a logical exchange indicated in packet-switched frames received the packet switched link and maintains the logical binding throughout the duration of the logical exchange.*

8. *A method for operating a communication link comprising the steps of:*

providing a bridge unit supporting a high bandwidth connection and a plurality of low bandwidth connections;

verifying operability the low bandwidth connections;

determining an exchange credit value based on number of operable low bandwidth connections;

issuing a message including the credit value on the high bandwidth connection;

requiring any device coupled to the high bandwidth connection have at least one exchange credit before communications will be accepted by the bridge unit on the high bandwidth connection from that device.

9. *The method of claim 8 wherein the validation is performed during initialization of the bridge circuit.*

10. *The method of claim 8 wherein the validation is performed dynamically at runtime.*

11. *The method of claim 8 further comprising:*

receiving a message in the bridge unit from a device coupled to the high bandwidth connection, the message having an exchange credit and an exchange identifier;

opening a logical exchange by binding the exchange identifier to a selected one of the low bandwidth connections;

routing subsequent messages received by the bridge unit that have the same exchange identifier to the low bandwidth connection that is bound to that exchange identifier.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Marcelo whose telephone number is 571-272-3125. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melvin Marcelo
Primary Examiner
Art Unit 2662

January 31, 2005